

1. Record Nr.	UNINA9910627231003321
Autore	Fernow Richard Clinton
Titolo	Principles of Magnetostatics // Richard Clinton Fernow
Pubbl/distr/stampa	Cambridge, England : , : Cambridge University Press, , 2017
Descrizione fisica	1 online resource (300 pages)
Disciplina	539.7
Soggetti	Nuclear physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Preface; 1. Basic concepts; 2. Magnetic materials; 3. Potential theory; 4. Conductor-dominant transverse fields; 5. Complex analysis of transverse fields; 6. Iron-dominant transverse fields; 7. Axial field configurations; 8. Periodic magnetic channels; 9. Permanent magnets; 10. Time-varying fields; 11. Numerical methods; Appendices: A. Symbols and SI units; B. Vector analysis; C. Bessel functions; D. Legendre functions; E. Complex variable analysis; F. Complete elliptic integrals; Index.
Sommario/riassunto	Magnetostatics, the mathematical theory that describes the forces and fields resulting from the steady flow of electrical currents, has a long history. By capturing the basic concepts, and building towards the computation of magnetic fields, this book is a self-contained discussion of the major subjects in magnetostatics. Overviews of Maxwell's equations, the Poisson equation, and boundary value problems pave the way for dealing with fields from transverse, axial and periodic magnetic arrangements and assemblies of permanent magnets. Examples from accelerator and beam physics give up-to-date context to the theory. Both complex contour integration and numerical techniques for calculating magnetic fields are discussed in detail with plentiful examples. Theoretical and practical information on carefully selected topics make this a one-stop reference for magnet designers, as well as for physics and electrical engineering undergraduate students. This title, first published in 2016, has been reissued as an Open Access publication.

2. Record Nr.	UNINA9910706250103321
Autore	McElroy Mark W.
Titolo	AF-Shell 1.0 user guide // Mark W. McElroy
Pubbl/distr/stampa	Hampton, Virginia : , : National Aeronautics and Space Administration, Langley Research Center, , September 2017
Descrizione fisica	1 online resource (30 pages) : color illustrations
Collana	NASA/TM ; ; 2017-219604
Soggetti	Composite materials Computer programs Computerized simulation Impact damage Laminates
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"September 2017." "Performing organization: NASA Langley Research Center"--Report documentation page.
Nota di bibliografia	Includes bibliographical references (pages 12-14).